



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/818,951	03/27/2001	Gary A. Solomon	10559-325001/P9686	9618

20985 7590 03/01/2004
FISH & RICHARDSON, PC
12390 EL CAMINO REAL
SAN DIEGO, CA 92130-2081

EXAMINER

MASON, DONNA K

ART UNIT PAPER NUMBER

2111

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/818,951

Applicant(s)

SOLOMON, GARY A.

Examiner

Donna K. Mason

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 1-16, 18, 19, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 1 recites the limitation "the determining if the requesting agent *did not* receive as much data as requested" (emphasis added) in lines 9-10. There is insufficient antecedent basis for this limitation in the claim. For clarity, the examiner recommends deleting "based upon the determining" in line 9 (see, e.g., claim 17 (as amended), which recites the suggested language in lines 10-11.
4. Claim 3 recites the limitation "the re-read pre-fetch factor" in line 2. There is insufficient antecedent basis for this limitation in the claim. (It should be noted that for examination purposes, claim 3 has been interpreted such that "the re-read pre-fetch factor register" is replaced with --a re-read pre-fetch register--).
5. Claim 8 recites the limitation "the determination if the requesting agent *did not* receive as much data as requested" (emphasis added) in lines 12-13. There is insufficient antecedent basis for this limitation in the claim. For clarity, the examiner recommends deleting "based upon the determination" in line 9 (see, e.g., claim 17 (as amended), which recites the suggested language in lines 10-11.

6. Claim 10 is ambiguous because it recites both an apparatus and method steps. More specifically, claim 10 (as amended) is directed to a system, but recites the step of "increasing the amount of data." As a result of this ambiguity, it is indefinite as to which statutory class of invention the claim is directed to. (See *Ex parte Lydell*, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990) (holding that a claim directed to an automatic transmission workstand and the method steps of using it was and properly rejected under 35 USC 112, second paragraph).

Because applicant submits that claim 10 is an apparatus claim (Paper No. 8, page 14, lines 25-30 to page 15, lines 1-2), it is recommended that applicant amend claim 10 to more clearly recite the functions of the bridge. For example, replacing "increasing" in line 4 with --the bridge being further configured to increase-- would provide more clarity.

7. Claim 18 recites the limitation "the re-read pre-fetch factor register" in lines 6-7. There is insufficient antecedent basis for this limitation in the claim. (It should be noted that for examination purposes, claim 18 has been interpreted such that "the re-read pre-fetch factor register" is replaced with --a re-read pre-fetch register--).

8. Claim 19 recites the limitation "the re-read pre-fetch factor register" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim. (It should be noted that for examination purposes, claim 19 has been interpreted such that "the re-read pre-fetch factor register" is replaced with --a re-read pre-fetch register--).

9. Claim 21 recites the limitation "the re-read pre-fetch factor register" in line 2. There is insufficient antecedent basis for this limitation in the claim. (It should be noted

Art Unit: 2111

that for examination purposes, claim 21 has been interpreted such that "the re-read pre-fetch factor register" is replaced with --a re-read pre-fetch register--).

10. Claims 2, 4-7, 9, and 11-16 inherit the deficiencies of their respective base claims.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1, 4, 6, 17, 20, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,609,168 to Willke, II ("Willke").

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

With regard to claims 1 and 4, Willke discloses a method including the steps of receiving, from an agent, a request to read data from a read address in pre-fetchable

Art Unit: 2111

data storage (column 2, lines 65-67 to column 3, line 1), retrieving an initial amount of data determined by a pre-fetch factor (column 3, lines 8-27), terminating the retrieving (column 3, lines 45-49), determining if the requesting agent received as much data as it requested (column 3, lines 36-40), and based upon the step of determining, storing a next read address (column 3, lines 28-33).

With regard to claim 6, Schumann discloses the method where the value of the pre-fetch factor is alterable (column 3, lines 8-27).

With regard to claim 17 and 20, Willke discloses a computer program product, disposed on a computer readable medium, including instructions (Fig. 4, item 420 and column 7, lines 1-3) to cause a computer to receive, from an agent, a request to read data from a read address in pre-fetchable data storage (column 2, lines 65-67 to column 3, line 1), read an initial amount of data determined by a value stored in a pre-fetch factor register (column 3, lines 8-27), determine if the requesting agent received as much data as it requested (column 3, lines 36-40), when the read terminates (column 3, lines 45-49), and if the requesting agent did not receive the full amount of requested data, store a next read address at which data would have been retrieved had the retrieving not been terminated (column 3, lines 28-33).

With regard to claim 22, Willke discloses the computer program product where the instructions are stored in and implemented by a bridge (Fig. 4, items 440, 442, and 446).

Therefore, Willke reads on the invention as claimed.

R sponse to Arguments

13. Applicant's arguments, see pages 15-20, filed January 20, 2004, with respect to the rejection of claims 1 and 6 under 35 U.S.C. 102(b) and claims 17, 20, and 22 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of U.S. Patent No. 6,609,168 to Willke, II.

14. Applicant's arguments, see pages 15-20, filed January 20, 2004, with respect to claims 8, 9, 11-16, and 19, and 21 have been fully considered and are persuasive. The rejection of claims 8, 9, 11-16, 19, and 21 has been withdrawn.

Allowable Subject Matter

15. Claims 2, 3, 5, 7-16, 18, 19, and 21 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

16. The following is a statement of reasons for the indication of allowable subject matter: The primary reason for the allowance of the claims is the inclusion of the limitations regarding a re-read pre-fetch factor (e.g., as recited in claim 2) or a re-read pre-fetch factor register (e.g., as recited in claims 8 and 18). The prior art references are directed to adaptive read pre-fetch methods and systems, which predict quantities of data based on single prediction factor, while the claims of the present invention are directed to predicting quantities of data based on both a pre-fetch factor and a re-read pre-fetch factor to determine the increased amount to be read.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donna K. Mason whose telephone number is (703) 305-1887. The examiner can normally be reached on Monday - Friday, 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H. Rinehart can be reached on (703) 305-4815. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2111

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DKM



MARK H. RINEHART
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100